REMARKS

In the Office Action of January 12, 2007, the Examiner rejected claims 1, 5, 7-10, 13, 16, 18-23, 25-28, 30, 31, 33-35, 37 and 38 under 35 U.S.C. 102(e) as being anticipated by *Dorenbosch et al.* The remaining claims were rejected as being obvious under 35 U.S.C. 103(a) over *Dorenbosch et al.* in view of *Boudreaux.* The Applicants have carefully considered the Examiner's rejection, but respectfully traverse the rejection for the reasons that follow.

Independent claims 1, 10, 21, and 26 are directed to methods and mobile devices for wireless channel selection. The mobile device described and claimed in the present application is configured to create a first connection with the wireless network over a first channel and a second connection with the wireless network over a second channel. As specified in independent method claims 1 and 21, the first connection over the first channel supports an active service between the mobile device and a remote point. The second channel is then selected from a set of candidate channels based on characteristics of the candidate channels and service criteria associated with the active service currently operating over the first channel. In other words, the mobile device identifies an appropriate second channel from one or more possible candidates on the basis that the second channel identified has characteristics suitable to support the active service, which is characterized by the service criteria associated with the active service. The claimed methods then specify a step of creating a second connection with the wireless network over the second channel, and switching the active service to the second connection. Independent device claims 10 and 26 specify a switching module configured to select the second channel and to evaluate the characteristics of at least one candidate channel against the service criteria associated with the active service operating over the first connection over the first channel.

The *Dorenbosch et al.* reference cited by the Examiner teaches a method of performing a soft hand-off of IP connections in a wireless network. In particular, *Dorenbosch et al.* teach a hand-off method for packet data communications over stream controlled transmission protocol (SCTP). The method suggested by *Dorenbosch et al.* is particularly intended for mobile devices communicating through a gateway with a legacy device that uses TCP/UDP. In essence, *Dorenbosch et al.* suggest that a first IP connection be established between a mobile device and a gateway. The mobile device is provided with a first IP address for use with the first IP

2

connection. The device then establishes a second IP connection using a second IP address, again with the gateway. The second IP connection is a secondary connection between the first station and the gateway, and the two connections exist concurrently. In one example embodiment, the first IP connection is established over a cellular channel and a second IP connection is established using a wireless IP access point operating in accordance with IEEE 802.11 protocols.

In the system and methods described by *Dorenbosch et al.*, the second connection (for example through an 802.11 wireless access point) is established whenever it becomes available. As noted by *Dorenbosch et al.* in paragraph [0030], establishing the second IP connection includes, "searching for an appropriate connection, associating with an IP access point, and establishing connectivity with the gateway by informing the gateway of the second IP address 225 using SCTP." *Dorenbosch et al.* emphasizes that, "the searching, associating, and establishing are undertaken independent and transparent of the application supporting the communicating of the packet data." The reference clarifies that the searching for appropriate wireless IP connection includes, "one or more of determining that an available connection includes an access point and suitable services, that the station B is able to successfully authenticate with the access point, or that connectivity to the gateway 205 is available." In an 802.11 capable mobile, the device regularly scans for an appropriate wireless IP connection. When it finds an appropriate one it associates with the access point, authenticates, and establishes connectivity: paragraph [0031]. *Dorenbosch et al.* emphasize that the acquisition of the second IP address is not performed by the application and that the radio/mobility software within the mobile device performs this task.

In other words, in the method and system taught by *Dorenbosch et al.*, the mobile device employs ordinary protocols for identifying and obtaining a second wireless connection through which the device may establish a second IP connection. For example, the device may scan for suitable wireless networks in its area in accordance with known 802.11 protocols. The service operating over the first connection is not taken into account by the device when it searches for and obtains a second connection.

These aspects of the *Dorenbosch et al.* reference are again emphasized in the flowchart shown in Figure 9 and described in paragraphs [0055] and [0056]. In particular, step 907 of the flowchart describes the process of establishing the second IP connection with a second IP address. As explained in [0055], setting of the second connection includes searching for an appropriate connection, associating with a second access point, and establishing connectivity with the gateway. These steps are undertaken independently of and transparently to the application operating over the first connection. Searching for an appropriate wireless IP connection may include determining that an available connection includes an access point and suitable services.

Dorenbosch et al. are clear that the mobile device only assesses whether the second IP connection should be the primary connection after the second IP connection has been established: paragraph [0033] and [0056]. At this stage, *Dorenbosch et al.* propose that the mobile device determine whether to switch from its primary IP connection to its secondary IP connection based on, for example, determining that the quality of service of the IP connection is degrading, tariffs for the second IP connection are favourable, or that services, such as bandwidth or security, are desired and available on the second IP connection. By suggesting this latter factor in connection with the decision to switch from the primary IP connection to the (already established) secondary IP connection, *Dorenbosch et al.* implicitly suggest that this assessment was not performed earlier.

Nowhere does *Dorenbosch et al.* suggest that the mobile device is aware of service criteria associated with the existing service operating over the first connection and that it evaluates the characteristics of the candidate channels to determine if these characteristics meet the service criteria when establishing a second connection. As claimed in the independent claims of the present application, the assessment of the characteristics of the candidate channels against service criteria for the existing service operating over the first connection is made prior to establishing the second connection over the second channel. The very selection of the second channel is made based on this evaluation. *Dorenbosch et al.* provides no such teaching. In fact, *Dorenbosch et al.* propose that the second connection be established in accordance with ordinary scanning protocols, such as that prescribed by 802.11. In fact, by suggesting that these steps of

searching for and establishing productivity over a second connection are independent of and transparent to the application currently operating, *Dorenbosch et al.* teach away from considering service criteria associated with the application when selecting a second channel.

For all these reasons, the Applicants respectfully submit that the *Dorenbosch et al.* reference fails to teach or suggest all elements claimed in the independent claims of the present application. Moreover, the Applicants respectfully suggest that the teachings of the *Dorenbosch et al.* reference would not be modified by one of ordinary skilled in the art to arrive at the device and methods claimed in the present application by considering the service criteria associated with an existing application in making a selection of a second channel. Accordingly, the Applicants respectfully submit that the independent claims of the present application are neither anticipated nor obvious in view of *Dorenbosch et al.*

The Boudreaux reference cited by the Examiner does not cure the deficiencies of *Dorenbosch et al.* outlined above and, as such, does not support the rejection of the independent claims in the present application when combined with *Dorenbosch et al.*

For all of the foregoing reasons, the Applicants respectfully submit that the independent claims and each of the dependent claims is patentably distinguishable over *Dorenbosch et al.* taken alone or in combination with Boudreaux. The Examiner is respectfully requested to reconsider his rejections.

Respectfully submitted,

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5